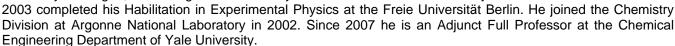
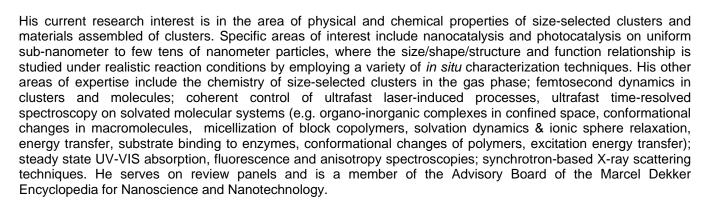
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Stefan Vajda received his M.Sc. degree in Physical Chemistry in 1985 from the Charles University in Prague, Ph.D. degree in Chemistry in 1990 from Charles University and in





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Selected Publications

Supported clusters and cluster-based nanomaterials:

"Optical Properties of Au Nanoparticles Produced by the Assembly of Size-Selected Cluster Deposition: Covering the full Visible Wavelength Range in the Smallest Particle Size Regime", S. Vajda, G. Wiederrecht, A. Bouhelier, B. Lee, S. Seifert, G.Y. Tikhonov, N. Tomczyk, and R.E. Winans, Col. Czech. Chem. Commun., invited contribution, 72, 121, 2007

"Highly Selective Catalytic Oxidation Reactions: I. Oxidative Dehydrogenation of Propane (ODHP) by Size-Selected Platinum Catalysts and II. Oxidation of Alkenes on Size-Selected Silver and Gold Clusters and Nanoparticles", S. Vajda, G. E. Ballentine, S. Mucherie, C. L. Marshall, J. W. Elam, M. J. Pellin, B. Lee, C.-T. Lo, S. Seifert, R. E. Winans, J. M. Calo, *Prepr. Am. Chem. Soc., Div. Pet. Chem.*, 2007, 52, (1), CODEN: ACPCAT ISSN:0569-3799.

"Supported Gold Clusters and Cluster-Based Nanomaterials: Characterization, Stability and Growth Studies by *In Situ* GISAXS under Vacuum Conditions and in the Presence of Hydrogen", S. Vajda, R.E. Winans, J.W. Elam, B. Lee, M.J. Pellin, S. Seifert, G.Y.Tikhonov and N. A. Tomczyk, *Topics in Catalysis, Special Issue "Nanotechnology in Catalysis*" 39, 161 (2006)

Chemistry of free size-selected clusters:

"Charge Transfer Initiated Nitroxyl Chemistry on Free Silver Clusters Ag_{2.5}": Size Effects and Magic Complexes", J. Hagen, L. D. Socaciu-Siebert, J. Le Roux, D. Popolan, S. Vajda, T. M. Bernhardt, and L. Wöste, *Intl. J. Mass. Spectr.*, **261**, *Chava Lifshitz Memorial Issue*. 152 (2007)

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Coherent control of photoinduced processes by tailored femtosecond laser pulses:

"Probing and Controlling Molecular Dynamics at the Subnanometer Scale with Tailor-Made Femtosecond Laser Pulses", S. Vajda, and L. Wöste, in *The Dekker Encyclopedia of Nanoscience and Nanotechnology,* Editors: J. A. Schwartz, C. Cotescu, and K. Putyera, Marcel Dekker, Inc., New York, *Invited review article, accepted,* 2008

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"Controlling the Vibration and Dissociation Dynamics in Small Molecules and Clusters", S. Vajda, and L. Wöste, in Femtochemistry, Eds.: F.C. De Schryver, S. De Feyter and G. Schweitzer, John Wiley-VCH, 2001, ISBNs: 3-527-30259-X (Hardback); 3-527-60018-3 (Electronic), Chapter 10, pp. 199-216



Ultrafast laser studies of molecular processes in the gas phase:

"Ultrafast Nuclear Dynamics Induced by Photodetachment of Ag_2^- and $Ag_2O_2^-$: Oxygen Desorption from a Molecular Silver Surface.", L. D. Socaciu-Siebert, J. Hagen, J. Le Roux, D. Popolan, M. Vaida, S. Vajda, T. M. Bernhardt, and L. Wöste, *Phys.Chem.Chem.Phys.* **7**, 2706 (2005)

"Observation and Theoretical Description of the Periodic Geometric Rearrangement in Electronically Excited Non-Stochiometric Sodium-Fluoride Clusters", S. Vajda, C. Lupulescu, A. Merli, F. Budzyn, and L. Wöste, M. Hartmann, J. Pittner, and V. Bonacic-Koutecký, *Phys. Rev. Lett.* **89**, 213404-1 (2002)

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"Femtosecond through Nanosecond Time Scale Solvation Dynamics in Pure Water and Inside the γ-Cyclodextrin Cavity", S. Vajda, R. Jimenez, E.W. Castner, Jr., S.J. Rosenthal, V. Fidler, and G.R. Fleming, *J. Chem. Soc. Faraday Transactions* **91**, 867 (1995)

"Nanosecond Fluorescence of Tryptophans in Cytochrome P450_{SCC} (CYP 11 A1): Effect of Substrate Binding", P. Anzenbacher, J. Hudecek, S. Vajda, V. Fidler, C. Laroque, and R. Lange, *Biochem. Biophys. Res. Commun.* **181**, 1493 (1991)

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